Author’s response to reviews

Title: Group B Streptococcus Tricuspid Endocarditis Presenting with Joint Pain in a 30 year-old Post-partum Woman - A case report

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Author's response to reviews: see over
Cover Letter – amendments made to “Group B Streptococcus Tricuspid Endocarditis Presenting with Joint Pain in a 30 year-old Post-partum Woman – A Case Report” based on suggestions from Peer review.

All suggestions were reasonable and sensible. They have all been accommodated.

**Review By Stephen Walsh**

1. The report is too succinct and would benefit from some elaboration, both in the case report per se and in the discussion. Specifically, would add details of the patient’s prenatal history, including whether prenatal GBS screening was done and would add a sentence on the health status of the infant she delivered.

The case report has been expanded, with more detail on the narrative of the case. Prenatal history, GBS screening, and the health of the infant were all included.

2. The timeline of the case presentation is unclear and would specify time elapsed throughout.

Each development of the case, and all results, have been identified by what day of admission they occurred.

3. In the case presentation, pertinent negatives should be added to the physical examination. Absence of murmur, pelvic examination, absence of embolic phenomena, etc.

This has been added to the case report, describing examination results at presentation and also at the time of diagnosis.

4. Normal ranges should be added to the table of laboratory values.

The table has been adjusted to include reference ranges

5. Details of the "extensive autoimmune, microbiological, and haematologic work-up" should be added. Numbers of negative blood cultures, serologic markers, etc should be specified.

This has been described in the case report in more detail, as well as a more comprehensive second table of results.
6. GBS is S. agalactiae (minor typo).

This has been changed

7. In the abstract and discussion, the authors comment that her presentation could have been interpreted as consistent with SLE (in which case her endocarditis could have been erroneously felt to be marantic). However, it is not clear that SLE was considered prospectively. If it was, this should be stated.

SLE was considered prospectively. The case report narrative now includes its consideration, as well as other diagnoses considered at the time.

8. I presume that the authors suspect the episiotomy was the source of the infection, but this is not mentioned.

The case report now discusses the different possibilities for sources of infection, also describing the lack of a clear clinical indication of what the actual source was

9. Do the authors feel there is a role for GBS screening?

A comment in the discussion has been added to the effect that GBS screening is not routine in the UK, can’t be justified on the basis of GBS endocarditis, and that the GBS screening debate per se is beyond the scope of the report.

10. The Figure should have key anatomic landmarks and the vegetation labelled to orient the reader.

The figure has been labeled, with the Right Atrium, Right Ventricle, Tricuspid valve and the vegetation all identified.

Review by Woei Bing Poon

1. Please provide the units of measurement of all values submitted. For instance, the platelet level.

The table has been adjusted to include reference ranges, and the report contains some reference ranges where relevant as well.

2. Please elaborate on the type of broad spectrum antibiotics given, the duration as well as the response to treatment of the patient.
The case report now includes original choice of antibiotics, and what they were changed to as the presentation progressed. It also includes eventual duration.

3. What "numerous further investigations" were done? The authors should be more specific and avoid statements which are too general to be informative.

This has been described in the case report in more detail, as well as a more comprehensive second table of results.

4. In this report, which is about infection, it is imperative to state microbial results including the culture results and what are the types of cultures sent, with the sensitivity and MIC. Was there any subtyping of the GBS?

The case report now clarifies that the organism was never successfully grown, and that final identification was by DNA analysis. Hence unavailability of sensitivities/MIC/subtyping.

5. Presumably, the patient became delirious due to sepsis. The authors should state the cause in the manuscript. Was a lumbar puncture performed? What were the results?

Case report states differential of neuro lupus and septic delirium. Report clarifies that Lumbar puncture was not performed due to profound thrombocytopenia.

6. In addition to stating that sepsis/infection can be a presentation of arthritis/autoimmune conditions, the authors will also need to educate the readers that malignancies may also present this way. These are the "red flags" that physicians should look out for.

Discussion includes presentation of malignancies with musculoskeletal symptoms, and the ways in which this can happen.

7. When we state that the GBS is due to "pregnancy", the authors should be more specific. This is more likely due to chorioamnionitis. The authors will need to go back to the history to state whether there was fever, abnormal per vaginal discharge, vaginal swab positivity in the antenatal/perpartum period.
Case report includes a more considered discussion of the clinical evidence present/lacking for chorioamnionitis, vaginal swab results, and examination findings.

8. In the conclusion, the authors stated that the GBS endocarditis is due to the "episiotomy" scar. No evidence of this was given in the case report.

The case report now discusses the different possibilities for sources of infection, also describing the lack of a clear clinical indication of what the actual source was.

9. The figure 1 table on investigations need to have units of measurement as well as the timing in relation to the presentation stated.

This has been added to the table.

10. The figure of the TEE should also be labelled to state where the vegetation is and label the tricuspid valve.

The figure has been labeled, with the Right Atrium, Right Ventricle, Tricuspid valve and the vegetation all identified.

Changes to the manuscript have been coloured blue.